



Quantum Signals: Noise and Amplification

Certain types of modern amplifiers and detectors are now so good that their output noise is limited by constraints imposed upon them by the rules of quantum mechanics and the Heisenberg uncertainty principle. In the early days of quantum mechanics many gedanken experiments were proposed to explore the strange features of 'wave function collapse' in the measurement process. Today practical versions of these experiments are being performed in the laboratory and theorists must confront this new reality. This talk will be a very simple and informal introduction to the physics of quantum measurements, noise and amplification.

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